

2.0 Overview of Columbia County

During the past 20 years, Columbia County has seen population growth at a moderate level. Table 2.0 presents selected demographic data to more fully illustrate the characteristics of the population living in the County, their households, and other socio-economic factors. It is important to recognize that much of the in-migration to Columbia County over the past twenty years comes from within the Augusta region. Many new residents of Columbia County relocated from the Augusta Richmond County area to live in a more suburban, upscale setting with a high quality school system. However, employment has not shifted to Columbia County. The ratio of residents (89,288) to jobs (19,778) is approximately four to one based on the latest Census information. This places increased demand on the transportation system linking Columbia County to Augusta and other employment centers – all of which are located to the east of Columbia County.

The overview of Columbia County documents: demographics, historic growth, future population, existing employment, environmental justice and existing and future land use.

Table 2.0
Existing General Demographic Characteristics

Demographic	Totals
Total Population	89,288
Median Age	33.9
Households	31,112
Average Household Size	2.85
Total Housing Units	33,321
Occupied Housing Units	31,120 (93.4% of total)
Owner-Occupied Housing Units	25,557 (82.1% of total)
Renter-Occupied Housing Units	5,563 (17.9% of total)
School Enrollment (age 3 and older)	26,407 (29.6% of total)
Percent High School Graduate or Higher	87.9%
Total Disabled Population – Age 5+	12,779 (14%)
% of Population in Same House or House in the Same County in 1995	68.5%

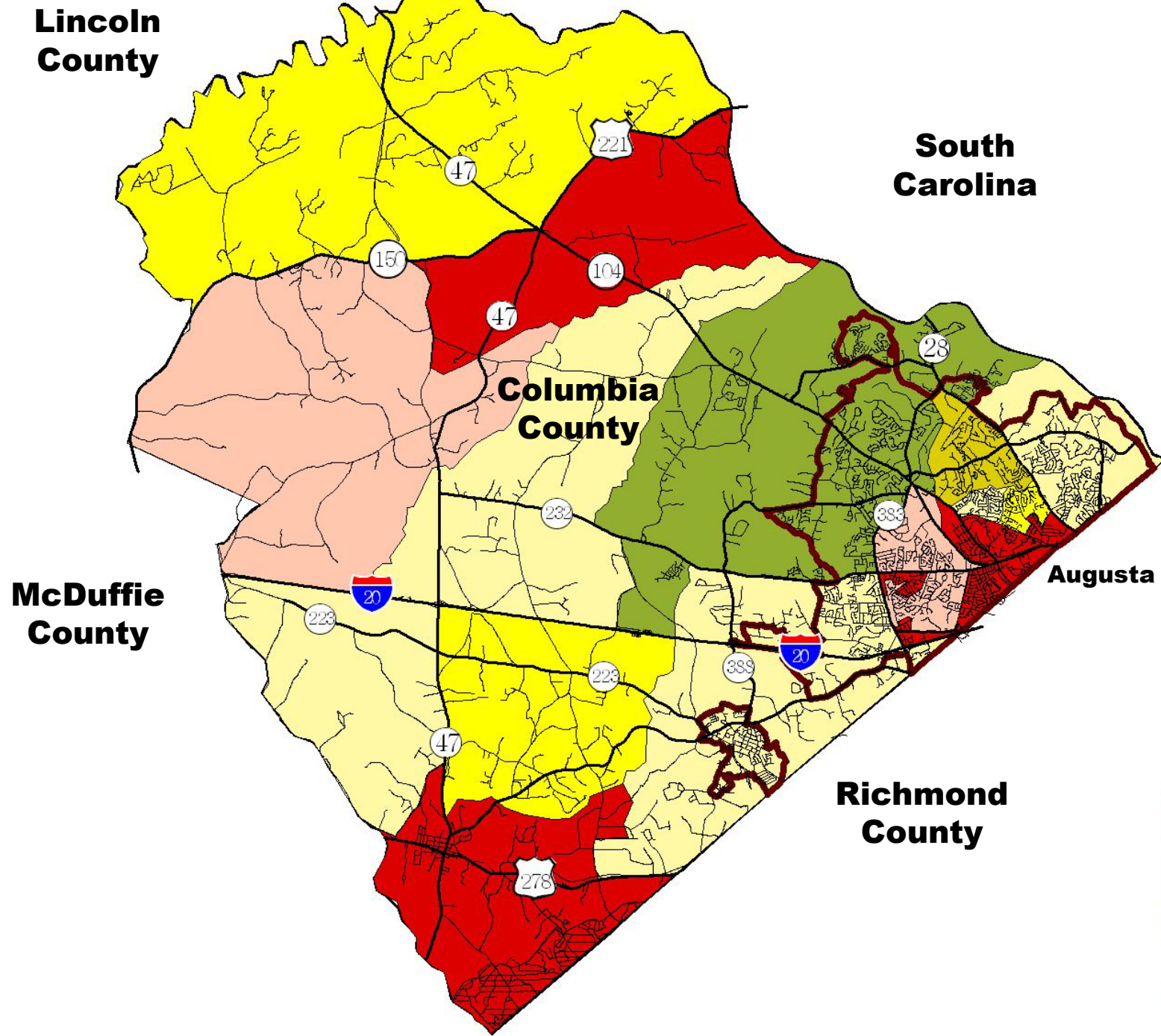
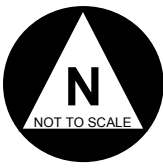
Source: 2000 U.S. Census

2.1 Historic Growth and Development

The population change for Columbia County was analyzed comparing the 1990 census data with the 2000 census data. A majority of the County experienced significant growth during this 10-year period (35%). However, there were some portions of the County that experienced small decreases in population. This is likely attributable to the fact that these census tracts had very low populations and the relocation of even a few residents resulted in a substantial percent reduction in population. It is interesting to note the population change occurring in the tracts along Washington Road adjacent to the Augusta Richmond County line. This is likely occurring as residents shift from more urbanized areas to newer developments out in suburban Columbia County.

It is anticipated that growth will continue to occur in the portions of the County that experienced 100% or greater growth over the past ten years. Currently, this is the area bounded by Belair Road and Louisville Road. This high growth area corresponds to sewer expansion and other capital projects identified and supported in the Columbia County 2020 Growth Management Plan.

Figure 2.1 shows the percent change of the population from 1990 to 2000 for each Census Block Group in Columbia County.



- Legend**
- Population Change from 1990 to 2000
- Population Decrease
 - 0 - 20%
 - 20 - 40%
 - 40 - 60%
 - 60 - 100%
 - More Than 100%
 - Major Roads
 - Urbanized Area Boundary
 - County Boundary

2.2 Future Population

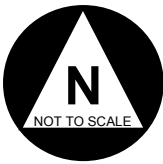
The population for Columbia County can be expected to increase in most areas of the County through the study horizon of 2025. A historical review of population data for Columbia County shows that while the study area's population declined in the 1940s, steady growth has occurred in the County over the past 40 years. Table 2.2 illustrates the growth trends for the County from 1900 to 2000.

Table 2.2
Historical Population Profile

1900	1920	1940	1960	1980	2000	Percent Change 1980 - 2000
10,653	11,718	9,433	13,423	40,118	89,288	120%

Source: 2000 U.S. Census

The future population growth and the location of this growth within Columbia County was determined by the Columbia County Planning Department and provided for use as part of this study. An accurate assessment of future population was particularly important because it serves as a primary input for calculating future trips through the study area. Similarly, the location of future population growth within the County was critical for accurately assigning trips to the roadway network. Columbia County assigned future population throughout the County based on land use and development patterns documented in the Columbia County 2020 Growth Management Plan. The results are displayed graphically in Figure 2.2.



**Lincoln
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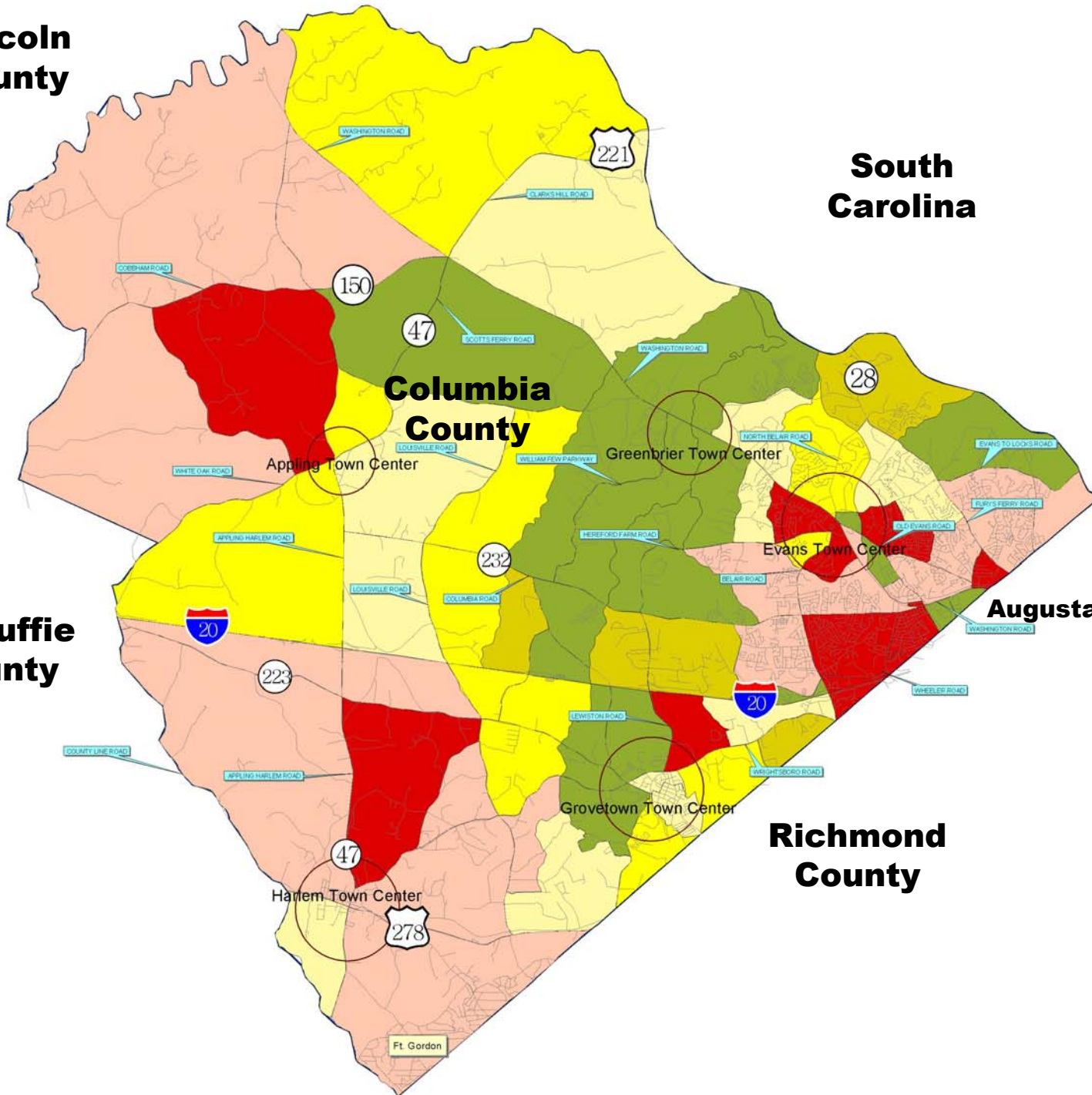
**South
Carolina**

**McDuffie
County**

**Columbia
County**

Augusta

**Richmond
County**



Legend

- Roadway
- Town Center
- Population Change**
- No Change
- Less Than 20%
- 20% - 40%
- 40% - 80%
- 80% - 100%
- More Than 100%

2.3 Existing Employment

Columbia County has a reliance on manufacturing, retail, education, and construction jobs. There is however some diversified employment that includes jobs in transportation, warehousing, and utilities; professional, scientific and management, and arts, entertainment, recreation and accommodations and food service. The number, type, and location of jobs have direct implications to the types of transportation facilities needed by business operations and workers in the area as well as the number of trips generated by these facilities. Table 2.3.1 shows the major categories of jobs and industries located in Columbia County.

Table 2.3.1
Existing Industry Jobs

Industry Type	# of Jobs
Agriculture, Forestry, Fishing, Hunting, and Mining	258
Construction	2,069
Manufacturing	2,796
Wholesale Trade	517
Retail Trade	4,387
Transportation, Warehousing, and Utilities	660
Finance, Insurance, Real Estate and Rental and Leasing	889
Professional, Scientific, Management, Administrative, and Waste Management Services	2,509
Education, Health, and Social Services	3,905
Arts, Entertainment, Recreation, Accommodation and Food Services	284
Other Services	432
Public Administration	788
TOTAL	19,778

Source: 2000 U.S. Census

Transportation mobility for workers in the study area is an important consideration for the LRTP. Not surprisingly, most workers (97%) in the study area rely on highway-based transportation for commute trips, either by driving alone or carpooling. About 1.2% of workers in the study area walked or commuted to work by other means and 2.2% worked at home. Table 2.3.2 illustrates the breakdowns in commuting modes for Columbia County.

Table 2.3.2
Existing Work Commute Patterns

Commuting Mode	Number	Percent
Total Workers (age 16 and older)	43,507	100
Drove Alone	37,501	86.2
Carpooled	4,470	10.3
Transit/Taxi	59	0.1
Bicycle or Walked	265	0.6
Other means	261	0.6
Worked at home	951	2.2
Mean travel time to work (minutes)	25.3	-

Source: 2000 U.S. Census

It is clear that the study area has become increasingly attractive to people and business owners who enjoy a rural lifestyle while having good access to nearby amenities in the Augusta urban area.

2.4 Environmental Justice Areas

It is important to look at the distribution and concentration of minority and low income populations because they are part of the environmental justice (EJ) population.

The ability to prevent discrimination and achieve environmental justice consists of a two-part process: involving the public early and continuously through the decision making process; and, using data to analytically assess if there would be a disproportionate impact on traditionally underrepresented communities.

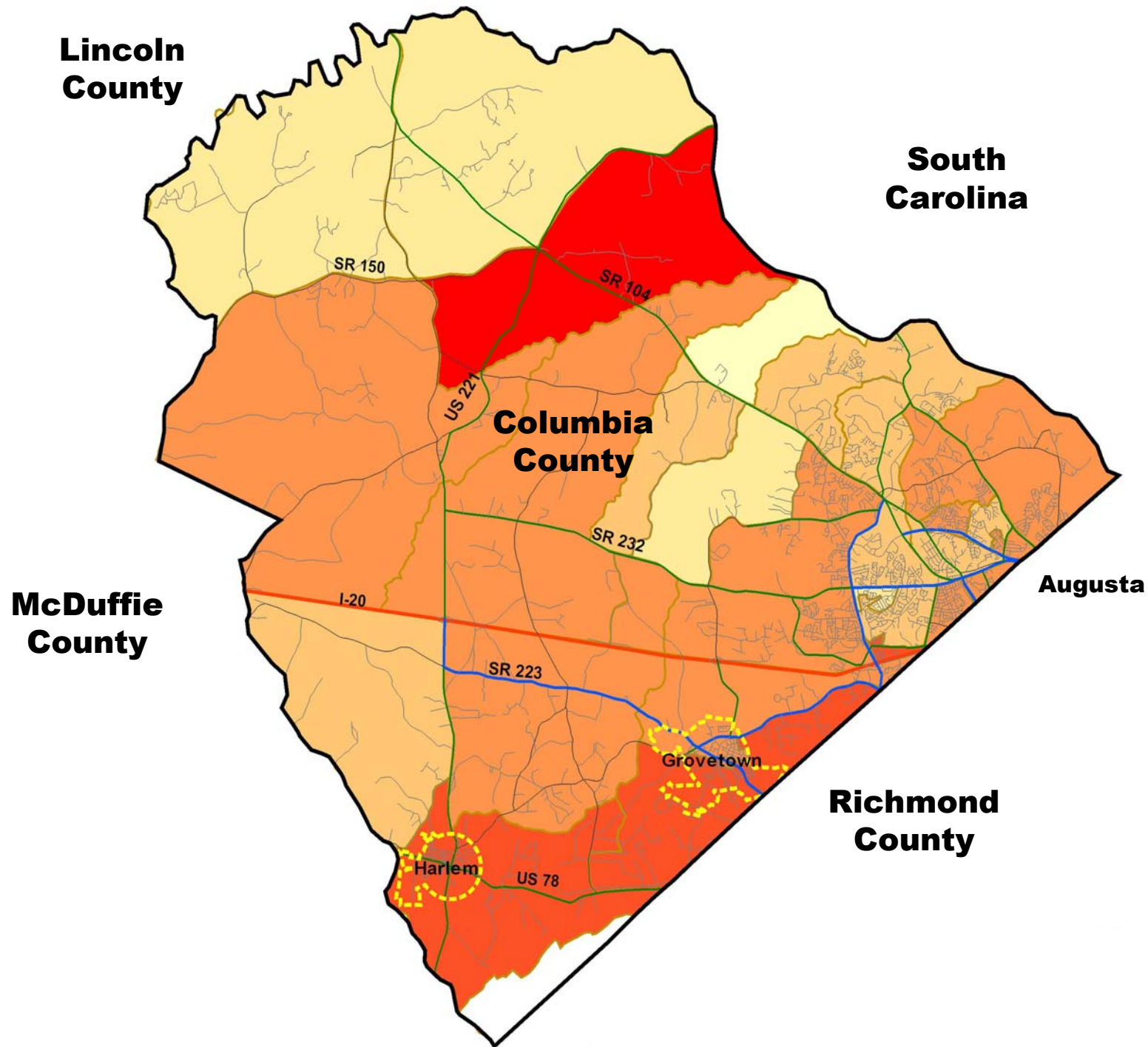
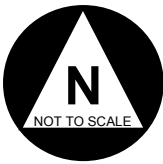
The U.S. DOT Order on Environmental Justice and Executive Order 12898 address persons belonging to any of the following groups:

- Black;
- Hispanic;
- Asian American;
- American Indian or Alaskan Native; and,
- Low-Income – a person whose household income (or in the case of a community or group, whose median household income) is at or below the U.S. Department of Health and Human Services poverty guidelines.

Environmental justice is intended to acknowledge minority and low-income populations and ensure that these groups receive benefits from transportation projects and are not disproportionately impacted as a result of transportation improvement recommendations. Census data was reviewed by census block group to determine potential environmental justice areas, which shows a relatively equal distribution throughout the County.

2.4.1 Percentage Minority

The minority population for Columbia County was analyzed using the 2000 census data. This census data was reviewed by census block group, and shows a relatively equal distribution throughout the County. The minority population ranges from 8.6% to 63.8%. The average minority population figure for Columbia County is 17.3% while the statewide average is 34.9%. The results are displayed in Figure 2.4.1.



Legend

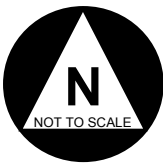
- Percent Minority**
- 0% to 5%
 - 5% to 10%
 - 10% to 15%
 - 15% to 25%
 - 25% to 50%
 - 50% to 75%
 - Other
- Roadway Network**
- Collector
 - Interstate
 - Local
 - Minor Arterial
 - Principal Arterial

2.4.2 Percentage Low-Income

The second component for environmental justice, poverty level, was also analyzed using the 2000 census data. This census data was reviewed by census block group, and similar to the minority population shows a relatively equal distribution throughout the County. The low-income population ranges from 0% to 16.1% throughout the County census block groups. The countywide average for poverty in Columbia County is 8.1% while the statewide average is 13.0%. The results are displayed in Figure 2.4.2.

It is helpful to analyze the low-income areas with the location of minority populations. Interest is drawn to areas with high populations for both of these categories. Figure 2.4.3 combines the minority and low-income population data and presents it in a single graphic.

A couple of census block groups were identified as part of this analysis and efforts were made to include these groups in the planning process. These areas were evaluated to ensure transportation improvements would benefit and do not disproportionately impact these areas in a negative manor.



**Lincoln
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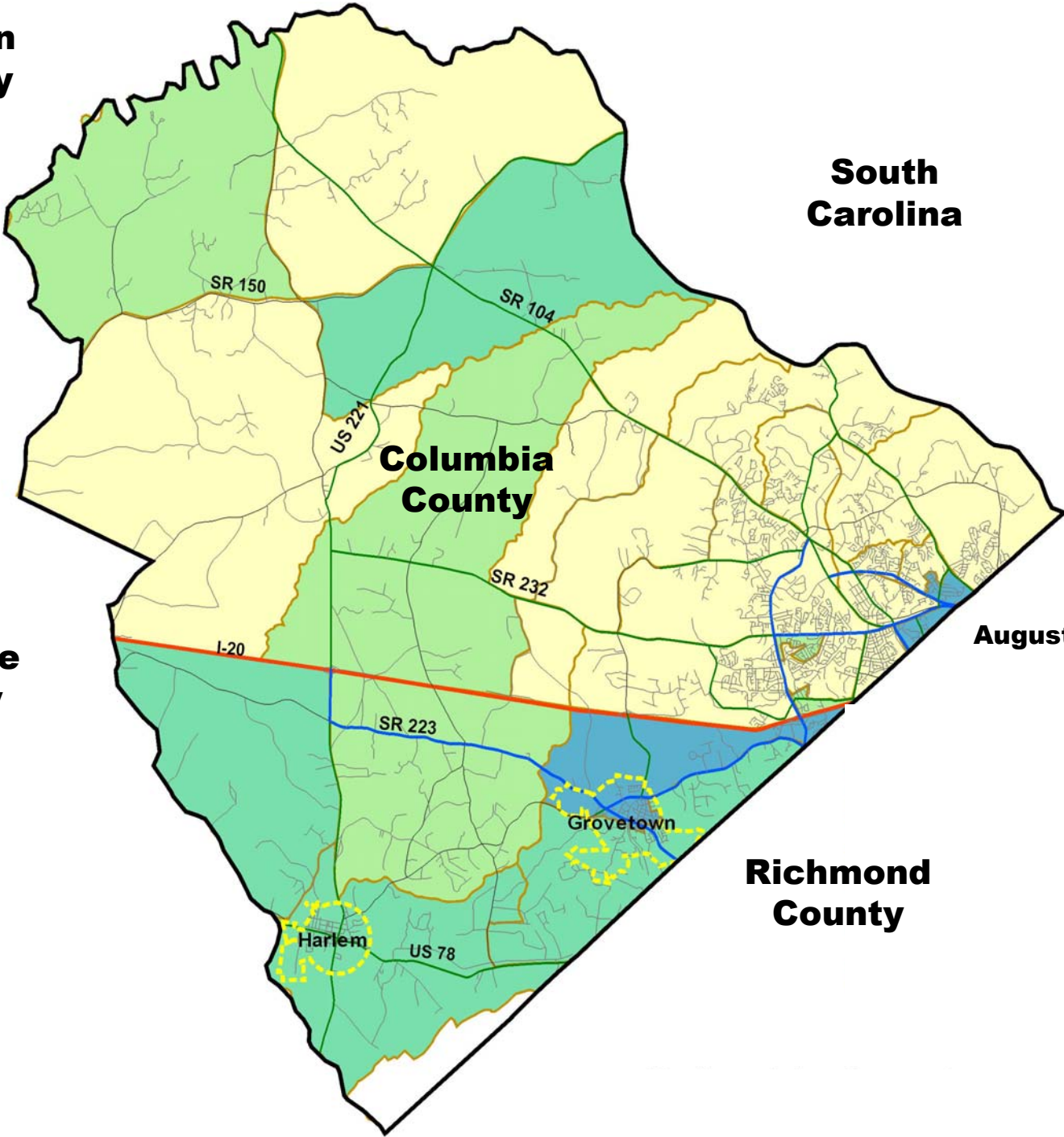
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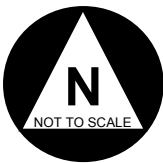
**McDuffie
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Augusta

**Richmond
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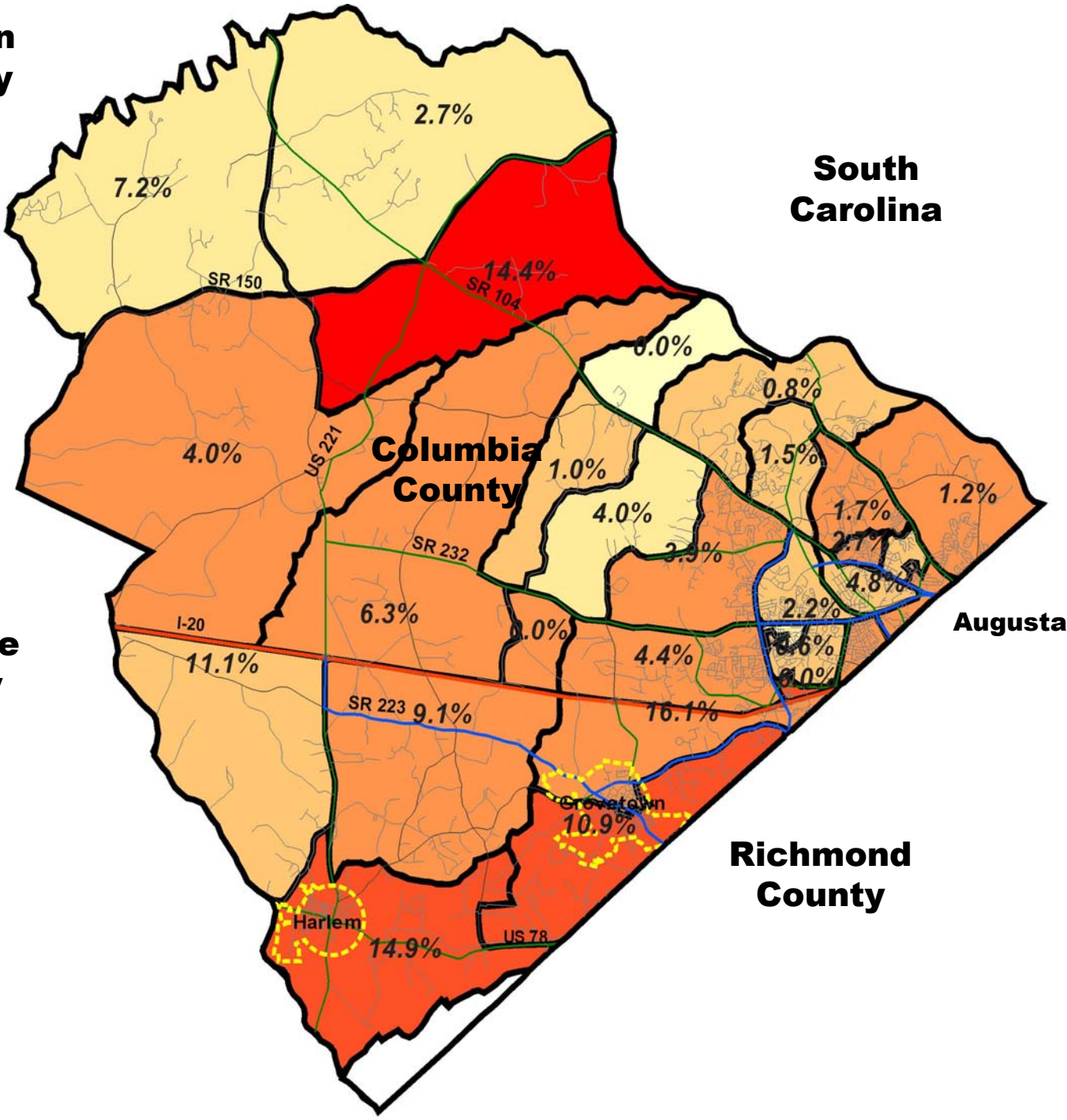
- Legend**
- Percent Below Poverty Level**
- 0% to 5%
 - 5% to 10 %
 - 10% to 15%
 - 15% to 25%
 - 25% to 35%
 - No Data
- Roadway Network**
- Collector
 - Interstate
 - Local
 - Minor Arterial
 - Principal Arterial



Lincoln County

South Carolina

McDuffie County



Legend

- Percent Minority**
- 0% to 5%
 - 5% to 10%
 - 10% to 15%
 - 15% to 25%
 - 25% to 50%
 - 50% to 75%
 - Other
- Roadway Network**
- Collector
 - Interstate
 - Local
 - Minor Arterial
 - Principal Arterial
- X% - Percent low-income

2.5 Land Use

The existing land use for Columbia County was reviewed to determine potential impacts to the transportation system. Literature reviews show that land use, perhaps more than any other factor, contributes to impacts on the transportation system. The existing and future land use plans for Columbia County continue to show a substantial percentage of the County devoted to residential land uses. Additionally, the County does not anticipate development of major employment centers within its jurisdiction. These two factors suggest that future transportation enhancements focus on servicing travel demand to and from the metropolitan Augusta area.

2.5.1 Existing Land Use Characteristics

Columbia County is a partially developed county with a suburban and rural residential character and a ready supply of vacant land available for future development. Currently, many of the corridors contain convenience retail uses, along with neighborhood activity centers. It appears that adequate sites exist and are planned within the corridors to serve surrounding residential development as well as pass-by traffic. To assess the impact of existing land use on the transportation system the following types of areas were identified: major residential areas; key activity centers; key employment centers and primary travel corridors.

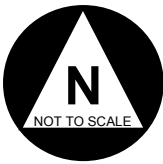
Figure 2.5.1 displays the existing land use for Columbia County.

Major Residential Areas

- Fury's Ferry Road Corridor
- Evans to Locks Road Corridor
- Hereford Farm Road Corridor
- Wrightsboro Road Corridor
- Harlem Grovetown Road Corridor
- Belair Road Corridor

Key Activity Centers

- Evans
- Martinez
- Grovetown
- Harlem
- Greenbrier
- Fury's Ferry Road Corridor
- Belair Road Corridor
- Washington Road Corridor
- Evans to Locks Road Corridor



**Lincoln
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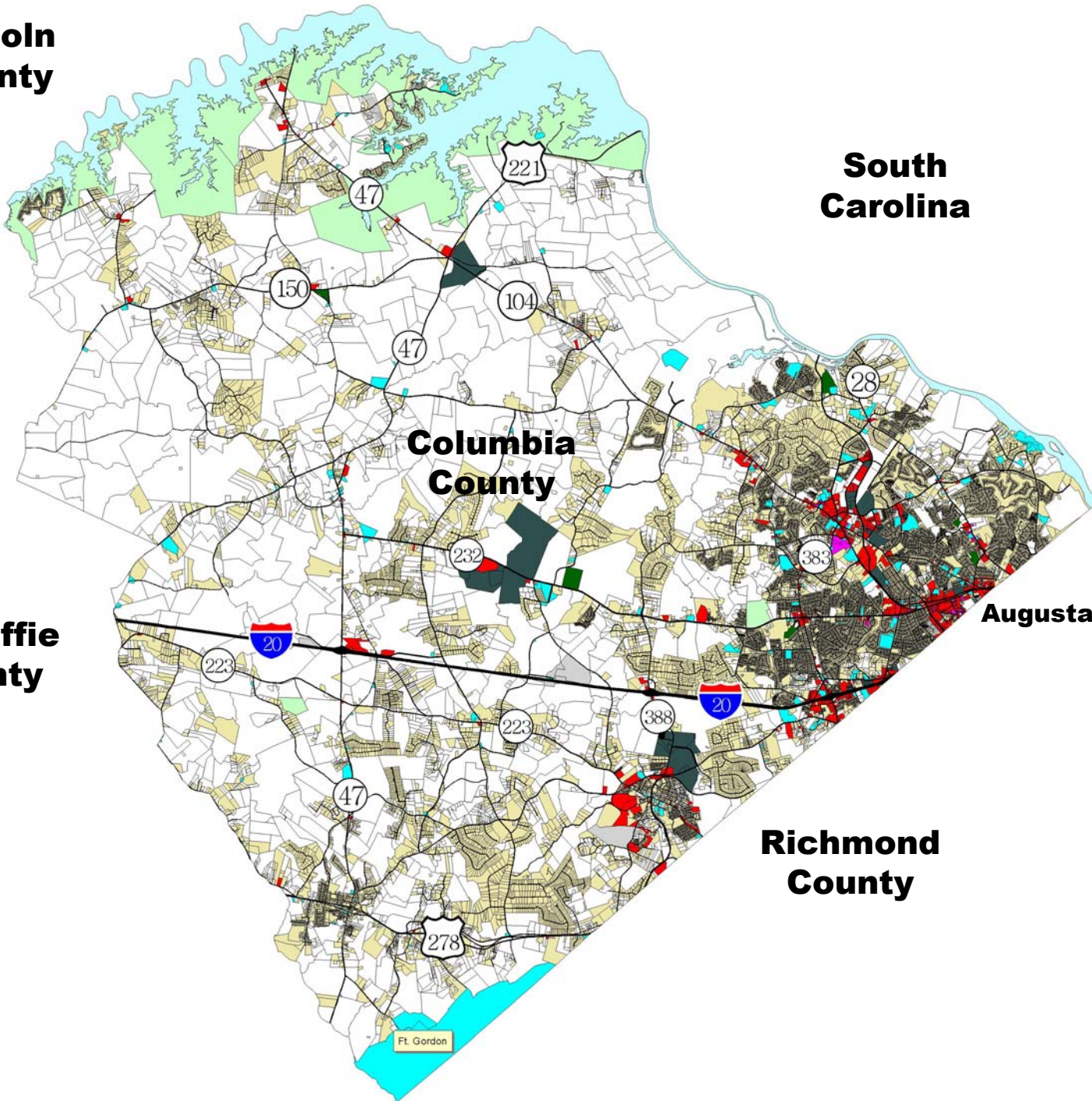
**South
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Legend

- Commercial
- Industrial
- Office/Professional
- Public/Institutional
- Roads
- Recreational - Active
- Recreational - Passive
- Residential
- Trans./Communication/Utilities
- Undeveloped - Vacant Land
- Undeveloped - Water

Key Employment Areas

- Evans Town Center
- Martinez
- Horizon South Parkway Corridor
- Grovetown
- Washington Road Corridor (Evans to Richmond County Line)

Primary Travel Corridors

- Washington Road
- Columbia Road
- I-20
- Bobby Jones Expressway
- Fury's Ferry Road
- Evans to Locks Road
- Wrightsboro Road
- Belair Road
- Horizon South Parkway
- Lewiston Road
- Bobby Jones Expressway
- Old Evans Road
- Old Petersburg Road

2.5.2 Future Land Use Characteristics

It is important to document future land use characteristics because this information is essential in the evaluation of future travel operating conditions through the study area. The future land use identifies the location of population and employment through the horizon year of the study. These two variables are the key inputs into the travel model to predict future travel volumes and identify related deficiencies.

For the purposes of this study was important to work with both the Future Land Use Map and the Development Opportunities Map contained in the Columbia County 2020 Growth Management Plan. These two maps identify where growth will occur in the County through the horizon year of the study. The Development Opportunities Map is particularly useful for transportation planning purposes. By clearly identifying where growth is allowed to occur in the County, it is possible for the travel model to more accurately represent trips on the road network for future years through a more accurate assignment of future population and employment information.

Of particular importance from this document was the location of sewer expansions. Columbia County identified that the portion of the County extending from Washington Road south to I-20 and bounded on the east by William Few Parkway and Hereford Farm Road and on the west by Louisville Road would be the target area for sewer service expansion. The availability of sewer service allows higher density development and the associated higher traffic volumes which was important for this study.

Another key finding from the future land use analysis is the continued presence of Fort Gordon in the southern most portion of the County. While only a fraction of the Fort is located in Columbia County, travel to and from this facility impacts the County transportation network. If Fort Gordon is closed or relocated it is very likely that travel conditions would change in the southern portion of Columbia County. Such a dramatic land use change would potentially impact facilities including Gordon Highway (US 278), Wrightsboro Road (SR 223) and Appling Harlem Road (SR 47).

To assess the impact of existing land use on the transportation system the following types of areas were identified: key activity centers and primary travel corridors.

Key Activity Centers

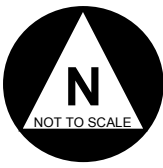
- Evans Town Center
- Grovetown Town Center
- Harlem Town Center
- Greenbrier Town Center
- Appling Town Center
- I-20 Development Corridor

Primary Travel Corridors

- Washington Road
- Columbia Road
- Interstate 20
- Bobby Jones Expressway
- Fury's Ferry Road
- Evans to Locks Road
- Wrightsboro Road
- Belair Road
- Horizon South Parkway
- Lewiston Road
- Bobby Jones Expressway
- Old Evans Road
- Old Petersburg Road

- Appling Harlem Road
- Cobbham Road
- William Few Parkway
- Hereford Farm Road
- Gibbs-Cox-Owens Road

The generalized future land uses are shown on Figure 2.5.2 and Development Opportunities area presented in Figure 2.5.3.



**Lincoln
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**South
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Legend

- Agriculture/Forestry
- Commercial
- Industrial
- Office/Professional
- Public/Institutional
- Planned Development Corridor
- Roads
- Recreational - Active
- Recreational - Passive
- Residential - High Density
- Residential - Low Density
- Residential - Medium Density
- Residential - Rural
- Residential - Recreational
- Trans./Communications/Utilities
- Undeveloped - Vacant Land
- Undeveloped - Water

